

The authors have made a strong case which I fully endorse. In many cases identification is not easy among Asian *Celaenorrhinus* species. With ca. 100 names available it is important that nomenclatural matters do not hamper identification and access to literature. The authors have made a thorough search of the relevant literature, and we can be confident that the name proposed to be suppressed has not ever been used since its introduction in 1907, except for the record mentioned. To further support their claim I like to add that the most complete worldwide catalogue of names in HESPERIIDAE to date, Bridges (1994), a considerably enlarged version of Bridges (1988), incorrectly listed as Bridges (1993, 1998), does not mention Matsumura's name either. The correct references are:

Bridges, C.A. 1983. *Lepidoptera: HesperIIDae, Notes on Species-group names*. 274 pp. Bridges, Urbana.

Bridges, C.A. 1988. *Catalogue of HesperIIDae (Lepidoptera: Rhopalocera)*. 590 pp. Bridges, Urbana.

Bridges, C.A. 1994. *Catalogue of the Family-group, Genus-group and Species-group names of the HesperIIDae (Lepidoptera) of the World*. 644 pp. Bridges, Urbana.

Comment on the proposed conservation of *Palanopus* E. Hitchcock, 1845 (Ichnotaxa, Reptilia?)

(Case 3348; see BZN 62: 237–239; 63: 49–50, 131–133)

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1. Moser (see BZN 63: 131–133, para. 1) suggests that *Sauroidichnites* does not need to be suppressed because it is not a valid ichnogenetic name. However, when *Sauroidichnites* was named (Hitchcock, 1837) it was used only at the ichnogenetic level (being used only in binominal combinations with ichnospecies), and not as a supra-ichnogenetic taxon; it was only later used (homonymously) as a supra-ichnogenetic taxon (Hitchcock, 1841). Thus, from its first usage, *Sauroidichnites* is a valid and available ichnogenetic name, and requires either suppression or conservation. If we were to follow Moser's arguments in para. 1, and instead argue that *Sauroidichnites* and the other pre-1845 ichnogeneta were not (or not intended to be) ichnogenetic names (valid and/or available or otherwise), but only supra-ichnogenetic names, then the pre-1845 ichnospecies names would not be valid (validity requiring that the ichnospecific name is associated with an ichnogenetic name, whether that be valid or available or not; Article 11.9.3). In turn, the next valid and available names would be those published (for the most part) in 1845 – which include many objective synonyms of the earlier names. We have then completely destabilized Early Jurassic tetrapod ichnological nomenclature – because, since 1915, all workers in the field have used the older (pre-1845) names. Fortunately, all of the pre-1845 ichnogenetic names (*Ornithichnites*, *Sauroidichnites*, *Batrachoidichnites*, *Tetrapodichnites*) can be shown to have been used in binominal nomenclature (and thus used as ichnogenetic names), and so the species associated with them are valid and available (unless other reasons are present).

2. *Ornithichnites palmatus* Hitchcock, 1836 (currently *Palamopus palmatus*) is the type species of *Sauroidichnites* Hitchcock, 1837 by explicit bibliographic reference; *Ornithichnites palmatus* is both valid and available from its original publication (Hitchcock, 1836). When Hitchcock (1845) renamed and reclassified all of his ichnites, he stated the type species of *Palamopus* to be *Palamopus anomalus*; but *P. anomalus* is the same species as *O. palmatus*, having the same description and being based on the same material (including having the same type specimen); *Palamopus anomalus* is merely an unjustified replacement name for *Ornithichnites palmatus*. Therefore, *P. anomalus* was never a valid name, although it is an available name. Thus, the type ichnospecies of *Palamopus* is *Ornithichnites palmatus*.

3. Moser (para. 4) suggests that I was incorrect in stating that four works had used *Palamopus* as the ichnotaxon name. He speculates that Kuhn (1963) did not consider pre-1845 names to be valid; however, the simple fact that Kuhn gave an 1841 date for *palmatus* indicates he did consider pre-1845 names valid and available. Moser (para. 4) also suggests that Kuhn (1963) and others (e.g. Haubold, 1971) followed Hay (1902) in not accepting the pre-1845 names; however Lull (1915, revised in 1953) and Hay (1930) used and accepted the availability and validity of the pre-1845 ichnospecific names (but only the availability, and not the validity, of the pre-1845 ichnogenetic names); Hay (1930) also explicitly stated that he did not consider his 1902 work to be nomenclaturally binding. Lull's 1953 tome is considered the key modern reference for Early Jurassic ichnology (and Hitchcock's material in particular), and its nomenclatural system (i.e. Hitchcock's pre-1845 species names) is followed by modern workers and is infused throughout the literature. Finally, Olsen & Padian (1986) only tentatively subjectively synonymized *Palamopus palmatus* and *Batrachopus deweyi* – using *Palamopus* rather than *Sauroidichnites* as the valid ichnogenetic 'home' for the ichnospecies *palmatus*. Of the few workers (other than Hitchcock) that have even mentioned this ichnotaxon since 1844 (see Rainforth, 2005 and Moser, 2006), it is critical to note that none has considered *Sauroidichnites* to be the valid ichnogenetic name; they have all treated *Palamopus* or one of its subjective or objective synonyms as the valid name.

4. Moser (para. 5) suggests that my previous (Rainforth, 2005) reasoning does not support the suppression of *Sauroidichnites*. I stress, however, that 100% of the usage – (whether 'prevailing' or not by the current Code's standards) since 1844 has been of an ichnogenetic name other than *Sauroidichnites* (whether that be *Palamopus* or an objective or subjective synonym), and usage of *palmatus* rather than *anomalus* as the valid (and available) name. Due to the inherent problems with retention of *Sauroidichnites* (alluded to by Lucas, 2006), which is both valid and available as an ichnogenetic name from its original publication (in which it was only used as an ichnogenus, not as a supra-ichnogenetic taxon), it is important that it be suppressed. Contra to Moser (para. 6), we cannot simply argue the name away as an unavailable name (on the basis of homonymy with a supra-ichnogenetic taxon) to get rid of the problem, because, in the original publication (Hitchcock, 1837), the name is only used in binominal combination, i.e. as an ichnogenus; it was not used as a supra-ichnogenetic name until 1841.

5. A final philosophical note. Edward Hitchcock's concept of ichnogenera changed in 1845, when the ichnospecies previously referred to *Sauroidichnites* were transferred to seven ichnogenera including *Palamopus* (the destination for the type ichnospecies

of *Sauroidichnites*). It is desirable to retain *Palamopus*, because Hitchcock's three pre-1845 ichnogenera were named as the footprints made by three different classes of tetrapods, whereas the 1845 and later ichnogenera were named under a new philosophy in which ichnogenera were distinguished with much higher morphological resolution, representing individual animal species or genera. As a result, *Palamopus* and *Sauroidichnites* are philosophically different, and have different diagnoses, descriptions, and species compositions. Retaining *Sauroidichnites* (in place of *Palamopus*) for *Ornithichnites palmatus* would thus essentially be mixing ichnotaxonomic apples (the 1836–1844 ichnogenera) and oranges (the 1845 and later ichnogenera).

Additional reference

Hay, O.P. 1930. Second Bibliography and Catalogue of the Fossil Vertebrata of North America. *Carnegie Institute of Washington Publication*, **390-2**: 1–1074.